

# PUBLIC HEALTH GIS NEWS AND INFORMATION

February, 1998 (No. 20)

*Dedicated to CDC/ATSDR scientific excellence and advancement in disease control and prevention using GIS*

## GIS National Conference



August 17-20, San Diego

Preliminary Announcement and Call for Papers at <http://atsdr1.atsdr.cdc.gov:8080/GIS/conference/>

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**Selected Contents:** Conferences (p.1); News from GIS Users (pp.1-8); GIS outreach (pp.8-9); Special reports (pp.9-14); GIS literature (pp.14-15); NCHS news (pp.15-18); Net site of interest (p.18); Final thoughts (p.19)

### I. Public Health GIS (and related) Events

☛ ASPRS-RTI (American Society for Photogrammetry and Remote Sensing, Resource Technology, Inc.) Annual Conference, March 30-April 4, Tampa, Florida [See <http://www.asprs.org/asprs> or contact voice (301) 493 0290]

☛ Population Association of America Annual Meeting, April 2-4, Chicago, Illinois [Contact: PAA at voice (301) 565-6710]

☛ 7th Biennial Remote Sensing Application Conference, USDA Forest Service, April 6-9, 1998, Nassau Bay, Texas [See <http://www.fs.fed.us/eng/rsac/rs98/index.htm>]

☛ National Conference on Environmental Decision Making, National Center for Environmental Decision-making Research (NCEDR), May 3-6, 1998, Knoxville, Tennessee [See <http://www.ncedr.org>; to receive conference and registration information, contact UT Conferences at e-mail [conferences@gateway.ce.utk.edu](mailto:conferences@gateway.ce.utk.edu) or voice (423) 974- 0280.

☛ 1st Annual Conference on Genetics and Public Health: Translating advances in human genetics into disease prevention and health promotion, May 13-15,

1998, Decatur, Georgia [Contact: Ellen P. King at e-mail [epk1@cdc.gov](mailto:epk1@cdc.gov) or voice (770) 488-7515]

☛ 1998 Symposium on Spatial Accuracy Assessment: The Third International Symposium on Spatial Accuracy Assessment in Natural Resources and Environmental Sciences, May 20-22, 1998, Quebec City, Quebec, Canada [See <http://www.crg.ulaval.ca> or contact at e-mail [spatial.accuracy@scg.ulaval.ca](mailto:spatial.accuracy@scg.ulaval.ca) or voice (418) 656-5491]

☛ First International Conference on Geospatial Information in Agriculture and Forestry, June 1-3, 1998, Lake Buena Vista, Florida [See <http://www.irim.org/CONF/ag.html>]

☛ XVI World Conference on Health Promotion and Health Education, June 21-26, 1998, San Juan, Puerto Rico [Contact by e-mail [hir\\_arroyo@rcmaca.upr.clu.edu](mailto:hir_arroyo@rcmaca.upr.clu.edu) or voice (787) 274-0582]

### II. News from GIS USERS

(Please communicate directly with colleagues on any issues)

#### A. General News (and Training Opportunities)

1. From **Theresa Kilgus**, Agency for Toxic Substances and Disease Registry: The National Environmental Health Association (NEHA) is

soliciting interest for potential GIS speakers for their annual educational conference. The conference will be held the week of June 28 - July 3, 1998, in Las Vegas, Nevada. The GIS session will be held on Sunday, June 28th. GIS topics sought include the presentation of findings from environmental health projects utilizing GIS, implementation of GIS in environmental health at the local, state, or national level, procedures used in getting information into a GIS, emerging GIS technologies and data useful in GIS-based analyses, the economic benefits of GIS/Spatial Analysis Techniques, and other GIS topics as they relate to the gathering and analysis of environmental data. If selected, complimentary registration to the day's activities will be provided by NEHA. While there are no travel funds available, local hotels provide excellent opportunities for low-cost lodging and travel to Las Vegas. [Contact: If interested, please FAX a brief description of your presentation to LCDR Theresa Kilgus at (404) 639-0653 or send via e-mail to tak9@cdc.gov]

2. From **Cynthia Brewer**, Assistant Professor of Geography, Penn State University: I am seeking participants for a funded study on visualizing epidemiological data. I would like to study the hypotheses you generate from looking at varied mappings of your own data. I will make digital maps of data you supply. Please contact me if you have (1) epidemiological data for a topic on which you are expert, (2) the data has geographic coding of some sort (such as addresses, zip codes, census tracts, counties, latitude/longitude), (3) the data are available now, and (4) you have NOT seen the data mapped. I have funds to pay you for the time you devote to preparing data and participating in a one-on-one interview with me (\$200 each participant). I would like to work with about 10 people altogether. This effort will benefit both of us. I will learn about the effectiveness of different visualizations and you will learn about the spatial patterns in your data. I will be happy to give you the maps and files resulting from our collaboration. These will be professional-quality maps: our cartography lab did the production work for the NCHS "Atlas of U.S. Mortality" published last spring.

This is an ideal opportunity for someone unsure of the benefits of mapping to their research, someone not yet using mapping software, or someone who just doesn't have the time to examine spatial aspects of their data. [Editor: This is an excellent opportunity to work with an outstanding and talented researcher; please contact Dr. Brewer at e-mail [cbrewer@essc.psu.edu](mailto:cbrewer@essc.psu.edu) or voice (814) 865-5072 to discuss your interest in the project]

3. From **Cynthia Warrick**, GIS Coordinator, Howard University: This message is to let you know that Howard University Continuing Education is now an ESRI GIS Learning Center. ESRI will be conducting the following classes at Howard University Continuing Education in Silver Spring according to the following 1998 schedule; February 23-24 Introduction to ArcView; February 25-27 Introduction to Avenue; April 20-21 Introduction to Avenue; April 22-24 Working with ArcView Spatial Analyst; August 3-4 Introduction to ArcView; August 5-7 Programming with Avenue; and, October 19-23 Introduction to Arc/Info. If you are interested or know of anyone interested in taking any of these classes, contact the ESRI Washington Office, Walt Rennick at [wrennick@esri.com](mailto:wrennick@esri.com), or [edu\\_registration@esri.com](mailto:edu_registration@esri.com), or consult the ESRI web page: [www.esri.com/training](http://www.esri.com/training).

4. The University of North Carolina, School of Public Health invites you to attend the **20th Annual Minority Health Conference- The Many Faces of Violence: Strategies for Prevention for the New Millennium**, February 19-20, Chapel Hill, NC. The 1998 Minority Health Conference will examine the issues of violence that affect our culturally and ethnically diverse communities. Topics will include homicide, firearm-related deaths, child abuse/neglect, domestic violence, youth violence, elder abuse, and occupational violence.

Violent and abusive acts negatively affect the physical and mental health of an estimated 2.2 million US residents every year. Among the many types of violent and abusive behaviors reported, suicide and homicide combined account for the fourth leading cause of premature death prior to the age of 65. For example, homicide is the leading cause of death in

Black men between the ages of 15 and 34. For these reasons, the multi-causal and multifaceted problem of violence has emerged in the last 15 years as a public health priority, particularly in communities of color where violence is at epidemic proportions.

The Conference's goals are to: Present interventions, policies and research that illustrate varied and innovative ways of examining, preventing and reducing violence in communities of color (an evaluation component will be part of these presentations); Summarize and disseminate information about violent and abusive behavior within the larger sociopolitical context, and; Provide the opportunity for increased interaction between conference attendees and presenters for the purposes of learning practical applications in preventing community violence. [For more information, please visit website <http://cdlhc.sph.unc.edu> or call (919) 966 4032]

**5. Occupational & Environmental Exposure Assessment: Applied Workshop**, February 23-25, 1998, Chapel Hill, North Carolina, and co-sponsored by NIOSH. This Workshop will be of interest to those involved in: Industrial Hygiene, Air Pollution, Epidemiology, Risk Assessment, Ventilation Engineering, Aerosol Physics, and Instrument Design. [For more information see <http://www.acgih.org/events/Apply98.htm>]

6. From **Bob Earickson**, U. of Maryland Baltimore County (Eighth International Symposium in Medical Geography): The medical geography specialty group of the Association of American Geographers extends an invitation to participate in the Eighth International Symposium on Medical Geography, to be held 13-17 July, 1998, at the Berkshire Conference Center, 10 West Burke Avenue, Towson, Maryland. This biennial conference, which rotates among the U.S. the U.K. and Canada., is coming back to the U.S. for the third time. Participants include academic geographers and allied disciplines from most continents, and paper, panel and poster sessions deal with every aspect of disease, health, health services, and policy issues. The

deadline for registration is 3 April 1998. Registration and accommodation forms may be obtained from Dr. Robert Earickson, Dept. of Geography, University of Maryland, 1000 Hilltop Circle, Baltimore, MD 21250 USA [Fax 410 455 1056; e-mail [earickso@umbc2.umbc.edu](mailto:earickso@umbc2.umbc.edu)].

### B. Technical News

7. From **David Solet**, Seattle-King County Department of Public Health: VISTA/PH is a user-friendly program that enables users without a sophisticated computer background or programming expertise to look at quantitative community assessment measures. Users can easily analyze birth, death, hospitalization and communicable disease datasets (and any user-supplied dataset). The measures produced range from simple (e.g., age-specific or crude rates) to complex (e.g., age-adjusted rates, 95% confidence intervals and a statistical test for trend over time). The results are sent to and presented in an Excel spreadsheet, where there is an easy connection to GIS packages (such as MapInfo, which we use here), and straightforward and rapid production of tables and figures. Also included in VISTA/PH are U.S. Census data (e.g., all of the STF3A variables, such as percent living below the poverty level, etc.) and intercensal population estimates.

The geographic units VISTA/PH analyzes are zip codes, census block groups and census tracts and VISTA/PH utilizes numerator data that has already been geocoded. These geographic building blocks can be combined in any way on the fly, to produce both trend and snapshot-in-time data for user-specified geographic areas. VISTA/PH's Windows-based graphical user interface is very easy to use.

VISTA/PH was developed at the Seattle-King County Department of Public Health and is in use in most local health jurisdictions in the State and at the state Department of Health. In the last two years, we have successfully distributed VISTA/PH to all of the other counties in Washington State and we are currently exploring mechanisms for distributing VISTA/PH to agencies in other states. If you wish to find out more about VISTA/PH or would potentially be interested in becoming a future user site, please

contact David at e-mail david.solet@metrokc.gov, or voice (206) 296-6817.

8. From **Charley Rothwell**, NCHS (advance information on an upcoming metadata workshop being planned by Dan Gilman at Census): Here is the first cut at the focus, purpose, and themes of the workshop. The focus will be to discuss implementations of ISO/IEC 11179 (Specification and Standardization of Data Elements) and ANSI DpANS X3.285 (Metamodel for the Management of Shareable Data). This work is instrumental in the models, standard, and repository we have/are developing. The primary purpose of the workshop will be on information exchange and establishing areas of collaboration between agencies. Workshop themes will include:

- Information exchange, introduce concepts to new (or potential) implementers;
- Establish a collaboration between registry efforts;
- Extend and harmonize of standards and content;
- Extend the utilization of 11179 to new universes of discourse;
- Get a few data registries underway with efforts to exchange metadata between them; and,
- Identify areas where one organization can take a lead in developing particular capabilities that can be shared with others. Please let Dan know if you have any questions or if you have some ideas you want to see included in the program. The metadata workshop is scheduled for the BLS conference and training center, April 15-17, 1998, in Rooms 7& 8. [Contact: Cathryn Dippo, Office of Survey Methods Research, Bureau of Labor Statistics at voice (202) 606 7372]

9. From David Hart, Land Information and Computer Graphics Facility, Madison: On October 15, 1997, a two-hour satellite videoconference titled "**A Practical Guide to Metadata Implementation for GIS/LIS Professionals**" was broadcast from the WHA studios in Madison, Wisconsin. The videoconference was sponsored by the National States Geographic Information Council and funded by the Federal Geographic Data Committee. The videoconference covered the following topics: What is Metadata and Why is it Important?; Get Acquainted with the Content

Standards for Digital Geospatial Metadata; Getting Started; Metadata Tools; Practical Experience with Creating Metadata: A State Perspective (Minnesota); and, What Can You Do With Your Metadata?

The broadcast was received by 109 sites in 34 states and 3 provinces in Canada. Estimated attendance was 200 in Wisconsin and 1500 outside Wisconsin. A total of 878 people, representing 66 of the 109 sites, filled out evaluation forms after the broadcast (perhaps an indication that people interested in metadata are more inclined to fill out forms). A few highlights from the evaluation: What is your overall rating of the program? Poor=4, Fair=108, Very Good=578, and Excellent=152. Should videoconferences be used for similar topics/areas in the future? Yes =848 and No=10. Additional information from the evaluation is on the satellite videoconference section of the project home page.

Speaking of the project home page, our facility suffered a hard disk failure on our web server, so the metadata project home page (including the metadata primer) has been temporarily moved to <http://rat.lic.wisc.edu/metadata/metahome.htm>. Hopefully in the near future it will also reside on the NSGIC and/or FGDC home pages. The video of the metadata satellite videoconference, along with the participant packet, are available from NSGIC for only \$30. Get yours while supplies last from the National States Geographic Information Council, 45 Lyme Road, Suite 304, Hanover, NH 03755-1223 (e-mail [nsgic@aol.com](mailto:nsgic@aol.com) or voice (603) 643-1600). [Contact David at e-mail [dhart@mac.wisc.edu](mailto:dhart@mac.wisc.edu) or voice (608) 263-5534]

10. From Paul Van Zuyle, NCGIA, U. of California Santa Barbara (**Ontology of Fields Initiative**): NCGIA's (National Center for Geographic Information and Analysis) Project Veranius invites participation in a specialist meeting on the Ontology of Fields. This initiative will explore conceptualizations of spatially continuous fields and their relationships to discrete objects. Description, cognition and operationalization of field concepts and ontologies will be among the topics of discussion. While much attention has been devoted to understanding the ways people conceptualize geographic phenomena as discrete

objects, alternative conceptualizations in terms of spatially continuous fields have received much less attention from a cognitive perspective. Fields are widely used as a scientific concept, particularly in mathematical physics, and many geographically distributed variables (e.g., elevation and temperature) are conceptualized as single-valued functions of location.

In everyday discourse, however, we have a comparative paucity of terms to describe continuous variation, and natural languages appear to favor descriptions that replace fields with discrete objects (peaks, valleys, fronts). Computer representations similarly favor discrete objects, and force the discretization of spatially continuous fields. How are we to understand the ontology of fields? Is human cognition less accommodating to field conceptions than to object-based conceptions? What are the interrelationships between object and field types of representations in human cognition? How can the cognitive interrelationships be operationalized? How can field representations be accommodated within contemporary paradigms of computing? How are the representations of the mathematical modeling communities in various domains to be related to cognitive categorizations? What methods can be devised to measure the effects of discretization? What options exist for representing uncertainty and indeterminacy in fields, and are they meaningful from a cognitive perspective?

To address these questions, interaction among a number of disciplinary communities is required, including GIS, Philosophy/Ontology, Mathematics, Spatial Statistics, Remote Sensing, and comprehending such example domains as climatology, soils Science, and urban geography. For more information about this meeting, see <http://www.ncgia.org/varenius/fields> or contact Paul Van Zuyle at <http://www.ncgia.ucsb.edu/~vanzuyle>.

11. From **Jane McCall**, Baystate Medical Center, Springfield, Massachusetts (on meta-analysis): Epilog (Epicenter Software (818) 304 9487) has an excellent program module that does many kinds of meta-analysis. The CDC (See CDC website) has a

beta-version of Epi-Meta for free that does meta-analysis of odds ratios.

12. From **Iris Shimizu**, NCHS: In 1998, the Interagency Confidentiality and Data Access Group (ICDAG) is planning to conduct tutorials on statistical methods to limit disclosure with a focus on health data. ICDAG is an interest group of the Office of Management and Budget's Federal Committee on Statistical Methodology (FCSM). FCSM's 1994 report, "Report on Statistical Disclosure Limitation Methodology," will serve as one of the principle references. The first tutorial will be held during the last week of April 1998 and will be sponsored by the Washington Statistical Society. ICDAG is working with the Statistics Section of the American Public Health Association (APHA) to plan its second tutorial which would be held in the conjunction with the APHA's 1998 annual meeting. ASA's P&C Committee will cosponsor each tutorial. Each tutorial will be advertised in AMSTAT NEWS. For information about the tutorials contact ICDAG'S Chair, Laura Zayatz at (301) 457-4955 or [laura\\_zayatz@ccmail.census.gov](mailto:laura_zayatz@ccmail.census.gov). [Editor: Arrangements are being made to have the ICDAG conduct a one-day Short Course at the 1999 CDC Statistical Methods Symposium in Atlanta]

13. From **Bob Byers** (via **Brad Myers**, EPO and **Wayne Johnson**, NCHS), National Center for HIV/STD/TB Prevention, CDC: Service pack 3 of S+ 4 has been released and there are problems. Brian Ripley says that libraries attaching compiled C code need to be recompiled, and at least one routine gave wrong answers instead of just not working. Dr. Ripley said "I won't say I was best pleased to have to track this down: I saw nothing in the release notes about the need to recompile code, hence this warning." Another user reported that after using the new release for the first time he was unable to reload S+. My experience is that version 4.0 is very unreliable when using the graphical interface, and extremely slow when attached to a large directory. I am back to using version 3.3. [Robert H. Byers, Jr., Ph.D. is Senior Statistician, Div. of HIV/AIDS Statistics & Data Management Branch and can be reached at e-mail [rhb1@cdc.gov](mailto:rhb1@cdc.gov) or voice

(404)-639-2025]

14. Lissa K. Blash, Public Administration, San Francisco State University (**Historical census data on the web**): For historical census data on the web, check out the IPUMS web-site from the History Department at the University of Minnesota at <http://www.ipums.umn.edu>. They have historical data from as far back as the 1800's. The only trick is that you need to be able to download and process the data files. This is Public Use Microdata Samples. It is great stuff, and the IPUMS people are very helpful. [Contact Lissa at e-mail [lplash@sfsu.edu](mailto:lplash@sfsu.edu)]

### C. Internet News

15. From **Lois\_Dean**, HUD (excerpts): I am sending this funding opportunity to encourage PPGIS-scope list members [Editor: applies to GIS Users as well], to apply for these funds and help to advance this objective of sharing data and collaborating on the development of GIS-ready data and the framework for doing this. Urban-scale initiatives tend to be underrepresented, so I am appealing to you to think about these to see if they might be appropriate for you or your colleagues. Each award can be \$40,000.

Data Clearinghouse. You could request funding to create or advance a collaborative effort between a Non-profit citizens organization, and the State or County; you could propose to include help from one or more universities to collect, prepare and post city, county, state and other data on the Web for local use, and use by others in conjunction with public participation, development of projects, coordination and/or targeting of services. Universities which have student projects for data analysis, planning, or GIS could supply the numbers of people to execute much of the work, as community service, interns, or class assignments. .

You could request modest funding to lay out the issues and obstacles you and others typically encounter when you are developing and using specific community-level data. You could propose to address these by some strategies you have used or would like to use to overcome these obstacles. You could describe the components of a cost-effective procedure

and collaborative organization for developing and maintaining local data-bases for local planning and project execution; you could then assess the value for organizations of such a collaborative effort in comparison with the absence of such procedures and/or the absence of such a collaborative effort. These could be start-up projects or projects to capture the experience of seasoned organizations and extend their capacity. These approaches will sound familiar to some of you who are already doing this work - perhaps this will provoke some of you to come up with some approaches that are far better and that some of you will follow up with an application and get funded!

Partnership funding programs for the National Spatial Data Infrastructure (NSDI) for Fiscal Year 1998 are open and applications are available online. Open period for applications for the FY 1998 programs is NOW: (1) the NSDI Cooperative Agreements Program closes February 27, 1998; (2) the NSDI Benefits Program closes February 27, 1998; and, the NSDI Framework Demonstration Projects Program closes March 13, 1998.

What These Programs are About (Please note that words in parenthesis are Lois Dean's "clarifications"): The Cooperative Agreements Program funds projects focused on promoting metadata collection (collection of descriptions of data that are available) and creating clearinghouses of geographic data linked to the Internet, developing NSDI standards (standard descriptions), advancing the NSDI through education, and organizing and strengthening state-wide or regional programs for geographic data sharing. Closes 2/27/98.

The Benefits Program funds projects that assess the qualitative or quantitative benefits (collaboration needed to overcome common obstacles) of using a shared data resource to solve particular problems over a given geographic area. Closes 2/27/98. The Framework Demonstration Projects Program funds projects that demonstrate technical, operational and business capabilities to collaboratively create and maintain certain categories of commonly needed Framework data. (What does it take to generate and maintain a base of collaborators, continued access to their products (i.e., GIS data and GIS output such as

maps, analyses, charts, etc.), and to disseminate the model?) Closes 3/13/98.

Proposals must involve partnering between two or more organizations. Applications may be submitted by Federal agencies, State and local government agencies, educational institutions, private firms, private foundations, and Federally acknowledged or state-recognized Native American tribes or groups. Applications from Federal agencies will not be competed against applications from other sources. Participants are expected to cost share in the project.

**Whom to Contact & How to Get Application Materials:** Copies of each Program Announcement are available through the Web at <http://www.usgs.gov/contracts/index.html>. Also, paper copies of Program Announcement #1434-HQ-98-PA-00044 for the NSDI Cooperative Agreements Program, Program Announcement #1434-HQ-98-PA-00046 for the NSDI Benefits Program, and Program Announcement #1434-HQ-98-PA-00045 for the NSDI Framework Demonstration Projects Program may be obtained by writing to Ms. Karen Staubs, U.S. Geological Survey, Office of Acquisition and Federal Assistance, Mail Stop 205B, 12201 Sunrise Valley Drive, Reston, Virginia 20192, (703) 648 7372, fax (703) 648-7901. Requests for hard copies must be in writing; verbal requests will not be honored.

**For Further Information Contact:** For the NSDI Cooperative Agreements Program contact Ms. Kathleen Craig, USGS Office of Acquisition and Federal Assistance, (703) 648-7357, fax (703) 648-7901. For the NSDI Benefits Program contact Ms. Debra Walsh, USGS Office of Acquisition and Federal Assistance, (703) 648-7384, fax (703) 648-7901. For the NSDI Framework Demonstration Projects Program contact Ms. Tammy Fanning, USGS Office of Acquisition and Federal Assistance, (703) 648-7363, fax (703) 648-7901.

16. From **Ronald E. LaPorte**, University of Pittsburgh (through epidemio-l digest 1191): We are in the process of submitting an NIH grant for our supercourse. For those unfamiliar with the course, it is a global, multilingual peer reviewed set of lectures

titled Epidemiology, the Internet and Global Health. You can come see the course at [www.pitt.edu/~super1/](http://www.pitt.edu/~super1/). We have 16 lectures currently available and have about 8 additional lectures that have been sent to us. We are trying to find out how many people in epidemiology would use the lectures in the course. The concept is that you could use one lecture, or you could use 30 and the use of the lectures are free. Please contact me if you would like further information, also please distribute to people in your department or any epidemiologist / public health list or person who might be interested. We currently have 413 faculty from 48 different countries collaborating in the development of this effort. [Ron is Director, Disease Monitoring and Telecommunications, WHO Collaborating Center and may be contacted at the Graduate School of Public Health at voice (412) 692-5203]

17. From **Jeff Waldon**, Virginia Tech (through fwim-l@listserv.vt.edu): The proceedings of the 1997 Annual Meeting of the Organization of Fish and Wildlife Information Managers is now posted at the OFWIM Web Site <http://www.fw.vt.edu/fishex/ofwim.html>. The list of titles is as follows: OFWIM Year-In- Review, 1996-1997, opening remarks; The Database: Backbone of Kentucky Fish and Wildlife Information System; Using the National Resources Inventory in Wildlife Habitat Assessments; The ESRI Conservation Program: Activities and Partnerships; An "Object Oriented" Design Approach to the Development of a Natural Resources Information System; The CLEAR Information Exchange Initiative: Providing Tools and Information to Private Citizens and Local Governments; The California Environmental Resources Evaluation System (CERES); Wildlife Habitats and Species Associations within Oregon and Washington; Landscapes: Building A Common Understanding For Management; Access and Use of Fish and Wildlife Information by Coastal Zone Planning; A New Database on Contaminant Exposure and Effects in Terrestrial; Vertebrates for Natural Resource Managers; Pull up a Toadstool: The Virginia Herpetological Atlas Project; Software for Environmental Awareness: Chemical Contamination

in Fish and Electronic Wetlands Herbarium; Developing Wildlife Resource Information for the Internet Environment; The Biosphere Reserve Integrated Monitoring Program: Current Status and Future Challenges; Building a World Species List World Species List (WSL); The BRIM "tool box": BioMon, MABFauna, MABFlora, and OBSERVE; Comparison of Three Avifaunal Databases and Data Improvement From 1987 to 1997, and Digital Orthophotography- A Base for Digitizing Soil Surveys. [Contact Jeff at the Dept. of Fisheries and Wildlife Sciences, e-mail fwiexchg@vt.edu or voice (540) 231-7348]

### III. GIS Outreach

(Editor: All solutions are welcome and will appear in the next edition; please note that the use of trade names and commercial sources that may appear in *Public Health GIS News and Information* is for identification only and does not imply endorsement by CDC or ATSDR)

✉ From **Melinda Flock**, NCHSTP: Do you know or does anyone in the GIS group know about or used a system called ARF (Area Resource File)? This system is available for \$450 on CD-ROM from an HHS contractor, Quality Resource Systems, Inc. located in Fairfax, Virginia. The system consists of a massive database containing more than 6,000 variables for each of the nation's counties (health information, economic information, environmental, NCHS detail mortality and natality, AHA facilities, AMA physician specialty data, etc.). [Contact Melinda at e-mail mlfl@cdc.gov or voice (404)639-8197]

✉ From **Abobaker Ba-amer**, Emory University: I am Humphrey Fellow at Rollins School of Public Health. I need to know who is working with ArcView GIS in Atlanta to contact him/her for assistance am intending to create an epidemiological map for leprosy (and another application) in Yemen. Thank you for your cooperation [Contact Abobaker at e-mail abaamer@sph.emory.edu or voice (404) 727 9975]

RESPONSE from **Jayanth Devasundaram**, MD Dept. Of Health: I was quite excited to see your request. I did not know that there was another person

in the world with leprosy control experience wanting to get into ArcView. I have spent many years in leprosy control programs in India before coming to the States in 1993. I have quite a lot of experience with ArcView programming and creation of automated applications in public health while working for the State of Maryland as an epidemiologist. I now work on a CDC-funded contacts investigation project in Tuberculosis control for the state of Maryland.

✉ From **Dorothy Wigmore**, NIOSH: Linda Ewers and at least one other person have told me about the GIS "gang" within CDC. I'm working in the medical section of HETAB at NIOSH and am interested in this technology as a result of working on an environmental justice project and my subsequent adaptation of some of the principles to mapping of workplaces. Are there folks within NIOSH who use GIS? (It would be fun to talk to someone who's using GIS for occupational health work.) Could I get on your mailing list for the time I'm here as a research fellow? [Editor: Dorothy is now officially part of our GIS Users Group; she can be reached at e-mail dpw4@cdc.gov or voice (513) 841-4329]

✉ From **Vishnu-priya Sneller**, NIP: I'm looking for a collaborator to analyze hepatitis B surveillance data from Dade County, Florida. Specifically, I'll need someone with expertise in a mapping program and who has access to TIGER files at the block group level. I plan to disaggregate population into half-mile grids, calculate proportion of cases and do Monte Carlo simulations. I want to produce contour maps based on the grids and overlap with a map of Dade county with major highways, in addition to thematic maps [Can you identify someone with a copy of Surfer (connected to a printer) who would be willing to produce no more than 10 maps with contours. I have the files to create the contours, with Surfer, as well] I also plan to plot the significance from the simulations. Is there a student [or colleague] who would be interested in working with me, on this topic? For someone who has access to maps and is proficient with Atlas-GIS or any other mapping program that allows you to do spatial analysis such as creating grids, this

exercise is a few days' work. [Contact Vishnu-priya at e-mail vbs6@cdc.gov or voice (404) 639-8257]

✉ From **Jim Wilson**, Center for Health Sciences Research and Development, East Carolina University: It's been a long time since I've e-mailed but I have a request that I think you can help us with here at ECU's Center for Health Services Research and Development. Basically we are considering making our web-site ([www.chsrd.med.ecu.edu](http://www.chsrd.med.ecu.edu)) more interactive and dynamic with respect to maps and (sub)- county level public health data (e.g., mortality rates, vital statistics, health programs, demographics, health resources etc.) for our 41 county region in eastern North Carolina.. We think this would be useful for educating students in our allied health and family medicine residency programs, as well as public health workers in the field. If we can get this off the ground we would consider expanding this project statewide.

I have seen a few simple web pages with county maps where you point and click and you're linked to some demographic info. The US Census Tiger page does a bit more than what you see on state government web pages. What we are envisioning is something in between, perhaps showing more county detail, distributions, and location of health care resources. Does the CDC have something like this or any pending projects concerned with mapping on the web? If so, who would I contact? Do you know of any sites or projects that are similar in nature and would serve as good examples? Thank you in advance for your help. [Contact Jim at East Carolina University, e-mail [jwilson@brody.med.ecu.edu](mailto:jwilson@brody.med.ecu.edu) or voice (919) 816-2587]

#### **IV. Special Reports**

(Submissions are open to all)

##### **AAAS Forum on the Future of Science**

(Jane Lubchenco, former President, Ecological Society of America, December, 1997)

A number of ongoing discussions about the future of science and scientific funding are converging. The AAAS Board is about to launch an electronic

conversation about future needs of society for science. Strong participation by the ecological community is highly desirable. A paper co-authored by members of the AAAS Board will appear in the December 19 issue of SCIENCE (available on line on that date; in paper copy about a week later). This paper announces the electronic conversation within the scientific community about (a) how the world is changing (b) the role of science in addressing those changes and (c) the appropriate response of scientists. The on-line discussion builds upon my AAAS Presidential Address (to be published in the Jan 19 issue of SCIENCE) which suggests that we need a new social contract for science, one which takes into account the massive environmental and social changes of the last few decades. As you undoubtedly know, most of the discussions about future funding for science focus only on the economic aspects, the technological opportunities, diseases to be conquered, the desire to maintain leadership in all scientific fields, etc. It is time to also include a strong emphasis on the needs of society for better ecological information/ understanding/knowledge.

The AAAS electronic conversation will happen over a 6 week period, ending in late January. The results (i.e., a summary) will be presented at the AAAS Annual meeting in Philadelphia February 12-17. Because this is the 150th Anniversary of AAAS, there will be special press and other attention. This summary will also form the cornerstone of AAAS' response to the invitation from Congressman Vernon Ehlers, vice-chair of the House Science Committee, to provide input into his new effort to write a new National Science and Technology Policy for the Nation. In addition, the National Science Board has released a White Paper suggesting the need for setting priorities for S&T funding. All of these efforts need to hear new voices. I invite and urge you to participate vigorously in AAAS' electronic discussion. Look for instructions in the AAAS Board paper in the December 19 issue of SCIENCE available on line at <http://www.sciencemag.org/>. Thanks! Jane [Contact: Jane Lubchenco, Department of Zoology, Oregon State University- crossposted from ENCCONFS-L, December 1997]

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### UCGIS President's Report

(David M. Mark, University of Buffalo, December 1997)

We've come a long way since the idea of some sort of organization to represent US research institutions in geographic information science was suggested in December 1990. Some of you probably were at the panel discussion at GIS/LIS'92 in San Jose, when, after almost two years of discussions, formation of a UCGIS [University Consortium for Geographic Information Science] seemed to be an idea that would neither die nor fly. A year later in Minneapolis, discussion even became heated as we debated elitist versus egalitarian foundations. But when representatives of more than 30 research institutions met at the Boulderado Hotel in Boulder, Colorado in December 1994, the enthusiasm, commitment, and degree of consensus among the delegates was inspiring, and the UCGIS was ready to take off, first under the Presidency of John Bossler, and then under Will Craig's leadership.

The year 1997, under the Presidency of Jerry Dobson, was a very significant year for UCGIS. In January, we made our presence known on "The Hill" with our first Congressional Breakfast. The crowd was small but included key staffers from important committees. Perhaps more significant were the meetings held that week with representatives of NSF, USGS, FGDC, and NIMA. UCGIS subsequently acquired a "seat at the table" at the monthly FGDC meetings, explicitly to represent the non-Federal research sector, and in October Jerry Dobson presented information about UCGIS to the FGDC Steering Committee including its Chair, Secretary Babbitt. In June we had a very successful Summer Assembly in Bar Harbor, at which UCGIS Educational Priorities were forged, as well as friendships and collegial relations cutting across seniority and disciplinary lines. Harlan Onsrud and the University of Maine are to be commended for finding a great site and organizing an innovative meeting program. And in Cincinnati in November, we admitted 11 new Member institutions as well as our first two Affiliate Members, and had our closest Presidential election ever.

The elections certainly were interesting. Greg

Elmes and Harlan Onsrud, both excellent candidates, finished in a dead heat for President-elect. We were startled to find that in such circumstances, the bylaws prescribe a coin toss, and that's how Greg Elmes (West Virginia University) became President-elect, to succeed to the Presidency in November 1998. Harlan continues to serve UCGIS as a Board member on the last year of his three-year term, and also chairs the UCGIS Policy and Legislation Committee. Art Getis (San Diego State) and Nina Lam (Louisiana State) were elected to three-year Board terms, replacing George Hepner and Donna Peuquet. Greg Elmes' election to the President-elect slot meant that we had to find a new Secretary, and John Radke (UC Berkeley) accepted that office, which is appointed by the Board. Ron Abler was asked by the Board to continue as Treasurer, and agreed. Will Craig finished his term as Past President, but continues to serve as Chair of both the Membership Committee and the Web Committee for our organization. Also in 1997, Bob McMaster (Minnesota) took over from me as Chair of the Research Committee, Dick Wright continues as Education Committee Chair, and Tom Palmerlee continues as our Executive Director and an effective voice for UCGIS in Washington. The team is in place for 1998, and all of the above, whether continuing, retiring, or joining the Board, are to be thanked for their willingness to serve.

It was a banner year for membership as well. In Cincinnati, the delegates voted to activate our "Affiliate Member" category for private sector organizations, and voted to admit our first two members of the new category, Environmental Systems Research Institute (ESRI), one of the largest, oldest, and most influential GIS firms, and Sedona GeoServices, Inc., a smaller and more specialized GIS company. We also admitted 11 new regular members, 10 Universities and one learned society (the American Geographical Society). By admitting the University of Connecticut, the University of Illinois (Urbana-Champaign), the University of Nebraska (Lincoln), the University of Oklahoma, and Virginia Commonwealth University, we added five more states to our membership-- UCGIS now has members in 30 states plus the District of Columbia. Also joining

UCGIS were Brigham Young University, the University of Massachusetts, Amherst, the University of Pittsburgh, and the University of Wisconsin, Milwaukee, bringing our total to 46 full members and 2 affiliate members. Four of the new members (Illinois, Nebraska, Southern California, and Pittsburgh), are members of the Association of American Universities, an organization of leading North American universities; in total, 22 of UCGIS's 42 university members are also in the AAU. The new members provide an excellent range of the kinds of high-quality Geographic Information Science institutions that UCGIS was formed to represent. To read more about the new and existing members, see the UCGIS web site, [http://www.ucgis.org/ucgis\\_members.html](http://www.ucgis.org/ucgis_members.html). At the Cincinnati meeting, UCGIS also amended its operating procedures to consider admitting new members twice a year; the next deadline for membership applications will be April 30, 1998. Barbara Battenfield (Colorado) also presented a draft Strategic Plan for the UCGIS, to be discussed over the next six months and considered for adoption at our next Council meeting.

All is not perfect, of course. We are still having trouble working out how exactly to accept contracts as an organization and then provide deliverables to the sponsor in a timely fashion. A small ad hoc task force will be struck to discuss this issue and report back to the next Assembly. And, although the situation has improved considerably over the last few months, we still have 14 members without UCGIS member Web pages connected to the UCGIS Web site. And lastly, although some of my favorite people are geographers, I think we need to increase the proportion of our Board, Presidents, and Officers that are NOT geographers, in order to be credible as a truly multidisciplinary organization.

As a young organization, UCGIS is off to a very good start. We will need to expand the core of volunteer workers by adding new faces, if we are to continue to thrive. UCGIS should experience a watershed year in 1998, and I look forward to working with many of you in efforts to solidify the place of the UCGIS as an organization with national impact and importance. Lastly, I'll add my personal best wishes

for the Holiday season and for a 1998 that is productive and rewarding for all of us. [Contact: David M. Mark, President, UCGIS, at [president@ucgis.org](mailto:president@ucgis.org) or [dmark@geog.buffalo.edu](mailto:dmark@geog.buffalo.edu)]

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### LANDVIEW® III

(Draft Report from **Paul Manka**, Geography Division, U.S. Census Bureau) [An Easy-To-Learn Mapping system that creates maps showing 1990 Census Population and U.S. Environmental Protection Agency (EPA) Superfund and Hazardous Waste data for Local Communities]

#### What Is Landview III?

LandView® III is an electronic geographic reference tool like an atlas. It displays a detailed network of roads, rivers and railroads (based on TIGER/Line® 95), jurisdictional and statistical boundaries, EPA-regulated sites, and key geographic features of the United States provided by the U.S. Geological Survey and other Federal agencies. LandView® III is a significantly updated release of the LandView® II CD-ROM series, developed by the U.S. Census Bureau in cooperation with the Environmental Protection Agency (EPA) and the National Oceanic & Atmospheric Administration (NOAA) to provide you with information on hazardous wastes in communities and 1990 Census demographic data on populations affected by these sites. LandView® III is distributed on a set of 11 compact discs. There are 10 local discs with each containing a grouping of states. An 11th CD-ROM (the U.S. Summary) covers the entire U.S. and includes all data except the detailed geography derived from TIGER/Line 1995 files (roads, rivers, railroads, place boundaries).

The U.S. Summary (Disc 11) is designed for those users whose primary interests are creating thematic maps or performing radius calculations that extend over a number of states. The local discs (Discs 1 - 10) contain the same information as the U.S. Summary disc for the grouping of states plus detailed networks of roads, rivers, and railroads based on the TIGER/Line 1995 files. The local discs are designed for users who need to: create maps containing a detailed network of roads, rivers, and railroads; match streets and addresses accurately to census tract or

block groups, or see detailed place boundaries. Each local disc provides the same functions available on the national disc but only for the states contained on the local disc. For example, a population radius calculation performed from the District of Columbia on local disc 1 would not contain information for Virginia since Virginia is on local disc 2 (For more details, see order form).

#### What Can You Do With LandView ® III?

1. **Access 1990 Census data.** In painting accurate statistical portraits of communities, the software provides access to more than 50 different 1990 Census economic and demographic statistics — from census block numbering areas all the way up to county level in rural areas. Figure 1 [not included here] shows both the type of data and geographic summary levels available.

2. **Create customized maps.** When you click on the

“Show on Map” button in Figure 1, the **MARPLOT®** program (the mapping software portion of LandView) automatically maps the geographic area selected. You can map the geographic area for any record in the census database. You can then further customize it to show varying amounts of detail. Figure 2 [not included here] shows a customized map for the area selected in Figure 1. You can show as many or as few layers of data as you need to create the right type of map for your application. This map shows Census block group centroids, census block group boundaries (which nest within census tracts), EPA Hazardous Waste Facilities, religious institutions, roads, schools, states, and EPA Superfund sites. Table 1 shows the geographic layers that can be displayed on the map. The MARPLOT® mapping program component of LandView® III allows users to add their own layers of information to the map.

Table 1 - Map Layers Available on LandView® III

Layer Grouping	Layer
<b>Census Demographic Layers</b> - <i>These layers are present on ALL LandView III CD-ROMs. Unless otherwise noted, these layers show either statistical or political boundaries as defined for the 1990 Census of Population and Housing.</i>	Alaska Native Lands*, American Indian Reservations*, Census block group centroids, Census block groups - generalized*, Census tracts*, congressional districts (105 <sup>th</sup> Congress)*, counties*, minor civil divisions (20 states)/census county divisions (balance of states)*, metropolitan areas ((June 30, 1996)*, place centroids, states*, zip code centroids (TIGER- January, 1997)
<b>Census 1995 TIGER/Line Layers</b> - <i>These layers are present on the local discs; the U.S. Summary discs contains these data for District of Columbia and Delaware only.</i>	Census block groups, miscellaneous, places, railroads, major roads, minor roads, shoreline and water.
<b>Environmental Protection Agency Layers</b> - <i>These layers are present on ALL LandView III CD-ROMs.</i>	Air Facilities, Air Quality Monitoring sites, Brownfields Pilots, Hazardous Waste facility information, Hydrologic Area Boundaries, Superfund sites, Toxic Release Inventory sites, and waste water discharger sites.

<b>International Layers</b> - <i>These layers are present on ALL LandView III CD-ROMs.</i>	Canadian Places, Canadian Provinces, Canadian Railroads, Canadian Roads, Mexican Places, Mexican Railroads, Mexican Roads, and Mexican States
<b>Other Agency Layers</b> - <i>These layers are present on ALL LandView III CD-ROMs.</i> These contain information from the U.S. Geological Survey and other federal agencies.	Airports, cemeteries, dams, hospitals, nuclear sites, religious institutions, runways, schools, U.S. Highways and U.S. Water.

\*Note: Boundaries that have been generalized are noted with an “\*”. The boundary files for the mapping of states, counties, tracts, block groups, minor civil divisions/census county divisions (MCDs/CCDs), metropolitan areas, American Indian Lands, Alaska Native Lands, and congressional districts are generalized, which means that the number of lines making up the perimeter of those polygons are reduced, and the polygon shapes are simplified. The purpose of generalizing the boundaries is to reduce the size of the map files, and to speed their display. Generalized boundaries are suitable for thematic mapping but are unsuitable for determining the governmental or census statistical area for a point on a map. Users who need to determine this, should use the “Describe Census Area” function under “LandView databases” in the MARPLOT Sharing Menu. (See discussion on differences between U.S. Summary and Local discs.)

**3. Search for Map Objects.** You can use the search capability of MARPLOT® to locate a particular site or feature in any of the map layers shown in Table 1 above. For example, if you were trying to locate “Lomond Court”. You would enter the street name into the MARPLOT search function dialog as shown in Figure 3 [not included here]. It would then return a list of streets matching the name. You would then indicate the address range or street intersection that you want MARPLOT® to “Show on Map & Zoom.

Then you can use the “Describe Census Area” function under “LandView databases” in the MARPLOT Sharing Menu which identifies the state, county, census tract and block group of the focus point on the map. (*You can use this function in those situations where a street may not have yet been added to the Census TIGER database, all you need to do is set the focus point at the location you need identified and click. It’s that simple!*) In addition, the MARPLOT Segment Settings dialog is available to provide more detailed information about the street from the TIGER/Line 1995 database. Figure 4 [not included here] shows Lomond Court as mapped by MARPLOT® along with the “Describe Census Area” and “Segment Settings” dialog boxes.

**4. Estimate Selected Demographic Characteristics Within a Radius From a Given Point.** The “Estimate Population” function under “LandView databases” in the MARPLOT Sharing Menu function provides selected 1990 Census demographics for a radius around a given point on the map. Figure 5 [not included here] below provides statistics for a radius of 1.25 miles as shown by the circle in Figure 2.

**5. Query the LandView III databases and MARPLOT Map Objects.** You can also use the MARPLOT “Select on Layer” function which is activated by dragging the mouse to define a “selection region” while pressing the “Ctrl” key on the keyboard. The dialog box then asks you to choose the layer(s) from which objects should be selected. When you click OK, objects on the checked layers will be selected within the region you defined or at the point where you clicked.. If more than one object becomes selected, you can see a list of the selected objects using the Copy to Search Collection item in the List menu. You can use the “Get Info” function under “LandView databases” in the MARPLOT Sharing Menu function which will then retrieve the appropriate database records for further analysis. You can even export the

selected records to a separate file.

**6. Create Thematic Maps.** You can display data on a map. Figure 6 [not included here] shows the distribution of census tracts by the 1990 Census Median Household Income.

Obtaining LandView® III: If you would like to try before you buy, you can test drive the product for a single county by visiting our TIGER Internet site at <http://www.census.gov/geo/www/tiger/>. The file download includes a detailed 83 page tutorial LV III Guided Tour in Adobe® Acrobat file format that provides a fuller explanation of this powerful but easy-to-use program. You may also send inquiries to [tiger@census.gov](mailto:tiger@census.gov).

#### V. Public Health GIS Literature

(This section may include literature citations, abstracts, syntheses, etc., and submissions are open to all)

**Chaosheng Zhang**, Chinese Academy of Sciences, gave a presentation entitled "Integration of Geospatial and Statistical Tools for the Study of Population and the Environment: Examples from China and Sweden", December 16, 1997, at the Center for Population Research, NICHD, NIH. Background: One of China's top 100 young scientists, Prof. Zhang spoke on the integration and statistical analysis of georeferenced earth science, demographic, and epidemiological data. His recent field areas are the Pearl River Delta, which includes Hong Kong, and the Yangtze River basin, where he is developing statistical tools for spatial analysis of metals such as Cu, Pb, and Zn, that are potentially toxic to humans. He has also just concluded a study with the Swedish Geological Survey in which he created and integrated ARC/INFO coverages of bedrock geology, surficial geology, biogeochemistry, soil geochemistry, bedrock geochemistry, air and water pollution, radiation, metal contents in wild animals, and incidence of child diabetes and child leukemia. In the Swedish study he was able to statistically distinguish background from anthropogenic levels of heavy metals, and thereby draw conclusions regarding the cause of certain diseases. [Contact Dr. Zhang (Institute of Geography), at e-mail [cszhang@bj.col.com.cn](mailto:cszhang@bj.col.com.cn) or voice (86 10)64914240]

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From **Phillip Bouton**, National Association of County and City Health Officials (NACCHO): "The Dartmouth Atlas of Health Care in the United States, 1998 Edition" by John Wennberg -- available from the American Hospital Association Press (voice 1-800-242-2626). The price is sufficiently high that potential buyers should examine first at a library to see if useful; cost of hard copy "atlas" is \$350; cost of CD ROM is \$1,200. The atlas most likely would especially be of interest to those doing GIS-related research on population more than age 65 years. The atlas displays geographic variation in Medicare reimbursements for the 306 hospital referral regions in the United States. These hospital referral regions are the same as those displayed in the NCHS Atlas of United States Mortality (DHHS Publication No. PHS 97-105). Examples of topics discussed in the Atlas include: "the American experience of death" (e.g., variation in patterns of treatment in intensive care units during the last 6 months of life); and "excess Medicare spending" (e.g., how the spending in other areas compare to relatively "low cost" areas in Connecticut and Minnesota).

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Washington Statistical Society Public Health & Biostatistics Seminar: "Examining Geographic Patterns of U.S. Mortality Rates," to be presented by **Linda W. Pickle** and **Catherine Cubbin**, National Center for Health Statistics (NCHS), Thursday, February 5, 1998, 2:00-3:30 P.M., at NCHS (Room 1110). Abstract: The National Center for Health Statistics has produced an Atlas of United States Mortality which includes maps of rates for 18 leading causes of death in the United States for the period 1988-92. Many aspects of statistical mapping have been re-examined through cognitive experimentation to maximize the Atlas' effectiveness in conveying accurate mortality patterns to public health practitioners. Multiple maps are included for each cause of death to answer different questions posed by the reader. These include maps of rates adjusted for age differences, smoothed rates for specific age groups, and statistical significance. Mortality data from

the new Atlas are being layered with data representing socio-demographic, environmental, and behavioral risk factors using ArcView to create a geographic information system (GIS) that will allow researchers to explore correlations between the patterns of mortality and those of suspected risk factors. The usefulness of mapping in public health research will be discussed and the new GIS system will be demonstrated using examples from the new Atlas for illustration. [Contact: Program Chair, Trena M. Ezzati-Rice at [tme1@cdc.gov](mailto:tme1@cdc.gov) or voice (301) 436-7022, ext. 133]

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#### Call for Contributors: GIS Map Roundtable

**Tom Richards**, PHPPPO, and **Chuck Croner**, NCHS, are developing a GIS map roundtable on "The Use of Geographic Information Systems to Improve Community Health" for publication in the February 1999 issue of the *Journal of Public Health Management and Practice*. All interested persons are invited to submit draft maps for consideration to Tom Richards by **March 31, 1998**.

The GIS map roundtable will consist of about 15 black-and-white maps, with one *Journal* page for each map. The goal is to provide examples of GIS success stories in the context of public health management and practice, that others around the nation can easily replicate by substituting the data appropriate for their jurisdictions. The goal also is to illustrate what can be accomplished with a "minimal to low technology approach" (what all beginners reasonably might be able to do with "off the shelf/out of the box" GIS software) as opposed to a "high technology approach" (what only a few can do because "sophisticated" computer capabilities or expertise is needed).

We recognize that we may receive more than 15 maps, and we regret that we will not be able to publish all maps. In selecting maps, we will give priority to: 1) being able to illustrate a wide variety of applications; 2) innovative uses of GIS mapping for community health planning, public health program evaluation, decision making, and improving the prevention effectiveness of community health programs; and 3) maps that state and local health public health practitioners potentially could use

successfully to convince community leaders to take action to improve community health. Maps should not have been previously published in a journal (with resultant copyright limitations). There is no limit to the number of draft maps that any one contributor can submit for consideration. Topics of special interest potentially include (but are not limited to) the following:

1. Childhood lead poisoning
2. Targeting public health outreach for immunization
3. Prenatal care, adequate care rate
4. Smoking rates during pregnancy
5. Child care center locations
6. Road traffic accidents
7. Ambulance and emergency care systems
8. Changes in demographic patterns for Local Health Department planning
9. Health resources and local economic development planning zones
10. Cancer diagnosis by Health Professional Manpower Shortage Areas and Medically Underserved Populations
11. Proximity to pollution sources and the risk of breast and other cancers
12. Public health impacts and toxic chemical emissions
13. Septic tank and other potential environmental exposure hazards
14. Optimal routing of essential public health services
15. Other public health applications

A complete set of detailed instructions for contributors may be obtained by contacting Tom Richards at e-mail [tbr1@cdc.gov](mailto:tbr1@cdc.gov) or voice (770) 488-2544.

**VI. Related Census, DHHS and Other Federal Developments: Excerpts from the REPORT ON LEGISLATIVE ACTIVITIES, JANUARY 1998, NATIONAL CENTER FOR HEALTH STATISTICS, OFFICE OF PLANNING, BUDGET, AND LEGISLATION.** The first session of the 105th Congress is over. The House and Senate both adjourned in mid-November after wrapping up the FY 1998 appropriations bills. Although 5 weeks of the fiscal year had passed before all 13 of the bills were finished, they were completed in a relatively

congenial fashion - in contrast to the chaos of last year. The HHS bill, in particular, was fashioned with bipartisan support. This year also marked the first time in three years that HHS spending was approved as part of a free-standing measure - as opposed to being lumped into an omnibus bill.

In October, the Senate Labor and Human Resources Committee endorsed the nomination of Dr. Satcher to be the Assistant Secretary for Health and Surgeon General. The nomination, however, has not yet been voted on by the full Senate. There is considerable support for the nomination, but some opposition as well, reportedly because Dr. Satcher is unwilling to denounce the Administration's position that any ban on partial birth abortions must include exceptions to protect a woman's life or health.

#### **PRIVACY AND CONFIDENTIALITY**

The privacy of health information, which has been the focus of congressional scrutiny on and off for over 20 years, has received particular attention since it became entangled in discussions of health reform in the first Clinton Administration. Those discussions gave the issue visibility and probably explain the fact that a number of the bills addressing standards for health plans (discussed above) include a section on confidentiality of medical information. And those preliminary discussions certainly paved the way, in the Health Insurance Portability and Accountability Act of 1996, to require the Secretary to submit recommendations on standards for the privacy of individually identifiable health information. These recommendations were submitted to the Congress in September 1997 and are likely to push the privacy issue to the forefront again. The November report of the President's Advisory Commission on Consumer Protection and Quality (mentioned above) includes recommendations generally consistent with those of the Secretary regarding medical records privacy.

The Senate has held two hearings on the Secretary's standards - the first to hear directly from the Secretary and the second to seek input from other interested parties. In terms of research, the recommendations propose that information be disclosed for research purposes without patient

authorization under certain circumstances including approval by an IRB review. The recommendations also state that current laws that provide for the reporting of vital events and federal laws providing greater confidentiality protection should not be tinkered with.

Already several of the Secretary's recommendations have emerged as particularly sticky. In particular, there has been criticism of the level of identifiable information that could be disclosed without authorization for law enforcement purposes. There has also been concern that the recommendations do not advocate federal preemption of stricter state laws. Regarding research, response has been mixed; while there has been some sentiment that disclosure for research provisions should be tightened up, testimony has also been presented in support of the proposed approach.

Senator Leahy (D-VT) has introduced the first Senate bill on this topic, S. 1368, the Medical Information Privacy and Security Act. This bill authorizes individuals to access identifiable health information about themselves. It also provides for disclosure of individually identifiable information, either with authorization or without authorization under certain circumstances. The bill requires that current federal regulations applicable to federally funded research would apply to all health research. And, within one year of enactment the Secretary would be required to submit to the Congress recommendations on whether written informed consent should be required before personally identifiable data can be used for medical research. Also, S. 1368 includes language exempting state laws which provide for the reporting of vital statistics such as birth or death information from the provisions of the bill. Finally, the bill would create an Office of Health Information Policy within HHS to generally monitor and assist with implementation.

Another bill addressing the confidentiality of medical information is expected to be introduced by Senator Bennett (R-UT) early in the next session. Senator Bennett was a major player on this issue in the last Congress. Senator Jeffords (R-VT), Chairman of the Senate Labor and Human Resources Committee - the committee with jurisdiction over this issue - has

indicated that he will act on it in 1998. The Health Insurance Portability and Accountability Act provides until August of 1999 for Congress to enact legislation. In the absence of privacy legislation by that time, the Secretary would be required to issue regulations.

Meanwhile in the House, there have been no hearings on the privacy issue but another bill has been put into play; this one by Rep. McDermott (D-WA) who reintroduced the medical privacy bill he first proposed in the last Congress. This bill (H.R. 1815) would allow individuals access to health information about themselves and would establish procedures for others to access confidential health information. Researchers would be required to obtain IRB approval as well as the authorization of individual research subjects. The bill would impose restrictions on access to nonidentifiable information, use of social security numbers, and linking of records. Also, the bill would give the Secretary discretion to develop guidelines on the anonymization of previously stored biological samples. No action has been taken on this bill.

Congress continues to profess concern about protecting genetic information but this concern has not yet translated into concrete action. President Clinton raised the visibility of the issue last summer when he announced support for the general approach adopted by popular companion bills introduced by Rep. Slaughter (D-NY) and Senator Snowe (R-ME). These bills would prohibit group insurers from denying or altering the terms of coverage based on genetic information and from requiring that plan members or applicants disclose genetic information as a condition of coverage. In addition, the bills would not allow insurers to disclose genetic information without authorization. In spite of the President's endorsement, no formal action has been taken on either of these bills.

### **CENSUS 2000**

In early June, the President vetoed a supplemental funding bill in part because it included language prohibiting the use of statistical sampling in determining the population for purposes of congressional apportionment. The President subsequently signed a funding bill which did not

include this provision. That law included language directing the Commerce Department to submit a plan describing its proposed methods for conducting Census 2000 and available methods to conduct an actual enumeration of the population.

The sampling squabble then moved to the regular appropriations process where it held up enactment of the Commerce measure until mid-November. Ultimately, a compromise was reached permitting the Bureau of the Census to continue to plan for the use of statistical sampling, but providing for expedited judicial review of the constitutionality of sampling. The law also establishes a bipartisan census monitoring board to report on progress in preparing for the census.

Meanwhile, the House passed a resolution expanding, for the duration of the 105th Congress, the number of subcommittees of the Government Reform and Oversight Committee. The additional subcommittee will be responsible for oversight of the census. On a less sweeping issue, bills have been introduced in both the Senate and House to require that Census 2000 collect data on family caregivers. The objective of these bills is to provide policymakers with a greater awareness of the number of family caregivers and the services they provide as the population of the country ages. There has been no action on either of these bills.

### **OTHER DATA ISSUES**

Congress has also stepped up its oversight of the year 2000 computer system problem. Numerous hearings have been held on this topic focusing on the adequacy of the response by both the government and the private sector. OMB is charged with monitoring federal agency progress in addressing this issue and due to congressional pressure is considering requiring agencies to shift money from other information technology issues to deal with the problem. Some in Congress are also calling for a high-level appointee to oversee activities and generally raise its profile.

Congressional interest in vital records issues has surfaced via several bills. The tax law enacted in August included a surprise provision - slipped in during conference proceedings - that requires states to

make available parents' Social Security Numbers (SSNs) obtained through the enumeration of birth process to the Commissioner of Social Security in the same way that they currently provide SSNs to the state agency that administers the child support enforcement program. The Commissioner is required to share this information with the Secretary of the Treasury to assist in monitoring the earned income tax credit. This provision is effective in February 1998.

A hearing was held last summer on H.R. 7, a bill to change the practice of automatically granting citizenship to all children born in the United States regardless of whether their parents are citizens. This bill would require that other factors be considered in granting citizenship at birth. Two other bills related to vital records have been introduced but not yet acted on. H.R. 2371, introduced by Rep. Vento (D-MN), would require that contracts entered into by the Commissioner of Social Security and states and local governments, related to furnishing death certificate information, provide for furnishing that information within thirty days of death. Another bill, H.R. 2338, introduced by Rep. Hinchey (D-NY), would require that the Secretary of Veterans Affairs follow state requirements when filing death certificates.

On other topics, Rep. Coble (R-NC) has introduced H.R. 2652, the "Collections of Information Antipiracy Act." Generally, the bill would "protect" a person's collection of information and prohibit its use by another entity if the use would harm the potential for that person's actual or potential market for a product or service that incorporates that collection of information. Government collections of information would not be protected under this bill. Rep. Coble, Chairman of the Courts and Intellectual Property

Subcommittee - the committee with jurisdiction over this bill - has held one hearing on this bill and plans to hold another.

In the final days of the congressional session, Senator Brownback (R-KS) introduced S. 1404, the Federal Statistical System Act. This bill would establish a Commission to study the federal statistical system and recommend changes to make it more efficient. The study would focus primarily on the statistical agencies responsible for economic statistics and whether these should be consolidated, but would address more general topics related to the statistical system as well. The bill also includes a modified version of an Administration proposal to allow certain statistical agencies, including NCHS, to be designated as statistical data centers. Selected agencies and other data centers could share data with the statistical data centers under carefully controlled conditions for statistical purposes. This bill does not include the Administration's proposal to allow NCHS to designate special "agents" who could access confidential data under tightly restricted conditions. The Senate Governmental Affairs Committee is expected to consider this bill during the next session. An identical bill is reportedly in the works in the House. Dr. Sondik and other Administration witnesses testified in July before the Subcommittee on Government Management, Information, and Technology in the House, making the case for the Administration's approach to data sharing. [Editor: For additional information on any of these issues, please contact Kathy Moss, NCHS at (301) 436-7142, ext. 130]

**Net Site of Interest for this Edition** ("Digital Atlas of New York City" at <http://130.166.124.2/NYpage1.html>): The American Cities Atlas Project is a continuing public education project of **Professor William Bowen**. It is produced for the support of instructional programs in the public schools of California and on the campuses of the California State University System throughout the state. Make sure to visit The Electronic Map Library at this web site for other cities in a digital atlas format. [Editor: NCHS Cartography and GIS Guest Lecture Series trivia- Did you know Professor Bowen gave the first-ever lecture in this series ("Mapping Applications and Spatial Analysis")]

at NCHS, on September 23, 1988!; Professor Bowen can be contacted at the Department of Geography, California State University at Northridge, Northridge, California at voice (818) 677-3532]

#### **Final Thought(s)**

**IN HONOR OF FRANK W. (“Bill”) McKAY, 1925-1998:** This issue of the newsletter is dedicated to the memory of a wonderful colleague, friend and most gifted computer mapping programmer, Bill McKay, who succumbed to cancer on January 23. Bill pioneered mortality mapping at the National Cancer Institute (NCI) and paved the road for many of us that followed. You will best remember Bill for his national cancer mortality maps published with Tom Mason (and others): *Atlas of Cancer Mortality for U.S. Counties: 1950-1969* (1975) and *Atlas of Cancer Mortality Among U.S. Nonwhites: 1950-1969* (1976). These groundbreaking atlases received tremendous attention from the U.S. Congress and resulted in significant program appropriations to NCI for expanded cancer analytic and research activities. Bill’s maps were also the basis for *An Atlas of Mortality from Selected Diseases* (1981) which expanded beyond cancer into many other causes of death. His computer mapping genius is also visible in “The State Cancer Control Map and Data Program” (1993, NCI with support from CDC and the American Cancer Society), a PC software program that allowed state and county mortality maps to be tailored by users (particularly physicians and local public health officials) according to cancer site and demographic variables. I felt very privileged to have worked with Bill on a variety of NCHS-related mapping projects. Even in his last year of life, Bill worked from his retirement home in Kingston, Tennessee on innovative approaches to mapping NCHS mortality data. He was a master of his craft. He was both mentor and personal friend. Contributions to the Jimmy Carter Habitat for Humanity project is how Bill wished to be remembered.

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